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*---= ST REPORT INTERNATIONAL ONLINE MAGAZINE ==---*
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"The Original 16/32bit Online Magazine"
from
STP Dublishing Inc.

STR Publishing Inc.

March 01, 1991 No.7.09

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STReport International Online Magazineâ ¢
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> 03/01/91: STReport  $\hat{a}$  ¢ #7.09 The Original 16/32 bit Online Magazine!

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- The Editor's Desk CPU REPORT CPU MacNews
   NEW MAC LASER WF II SHIPS! NEW STE DEMOS!
   STACY POWER USER SUPPORT OPTICAL STORAGE
   BORDER MANIA! Radical Type!! STR Confidential
  - \* 1040 STe -> 20mhz 14mb RAM! \*
    - \* TURBO 20 ANNOUNCED! \*
    - \* DON MANDEL NOW WITH ATARI! \*

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ST REPORT INTERNATIONAL ONLINE MAGAZINE  $\hat{a}$   $\varphi$  The \_Number One\_ Online Magazine

-\* FEATURING \*-

"UP-TO-DATE News and Information"

Current Events, Original Articles, Hot Tips, and Information Hardware - Software - Corporate - R & D - Imports

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STReport's support BBS, NODE # 350 invites systems using Forem ST and Turbo Board BBS to participate in the Fido/F-Net Mail Network. Or, call Node 350 direct at 904-786-4176, and enjoy the excitement of exchanging information relative to the Atari ST computer arena through an excellent International ST Mail Network. All registered F-NET - Crossnet SysOps are welcome to join the STReport Crossnet Conference. The Crossnet Conference Code is #34813, and the "Lead Node" is # 350. All systems are most welcome to actively participate. Support Atari Computers; Join Today!

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#### > The Editor's Podiumâ ¢

Dealers crying foul, other dealers pointing fingers and still... it only amounts to a handful who are making noises. Sorta reminds me of the TV commercial, "please, help me I've fallen and can't get up". Somebody ought to push the button for these guys.

Since the market is its own best teacher, STReport recommends to those who are ever so busy trying to modify a simple but powerful plan to give Atari's new, aggressive marketing plan a chance to work. After all, Circuit City, McDuff etc., have proven themselves to be first rate electronics outlets that are totally customer oriented. Some folks have "requested" that STReport make some suggestions as to how Atari should be marketing their products. We have done so already. To repeat the answer, simple and to the point, STReport fully supports Atari's latest marketing efforts and energetically requests that every Atari user do the same.

Some have threatened to leave the Atari marketplace, others have already done so. In all probabilities, those who have left were apt to do so anyway. Like the guy in blue denim overalls says; "Aw shucks, its a free country!" Its truly sad to see this happen at any time but to see it occur at a time when Atari is most responsive is a tragedy. The Mega STe and the TT030 are designed with the user and future in mind. Can you say notebook? Wanna bet there's a "notebook" in your future?

STReport, as you have surely noticed over last 8 months, has been slowly changing to offer comprehensive coverage and a refreshingly informative outlook on computing in general. The MS-DOS, IBM/PC platform, the Mac platform and the Amiga platform enjoy coverage in our humble publication. Rest assured, Atari will remain the backbone of each of our issues, while content relative to the other platforms will be presented in hopes of providing to our readers a timely, well rounded, informative weekly electronic magazine.

I would, at this time, like to take a moment to welcome Don Mandel to the ranks of those who "try harder" at Atari. Don has come aboard as Atari's new National Sales & Marketing Guru. Don is slated to handle the VAR side of the marketing plans for Atari. Formally of Commodore and Wang, Don brings a great deal of US marketing expertise to Atari. Welcome and Lots 'o' Luck!

Thanks once again for your strong support!

Ralph....

TODAY'S NEWS .. TODAY!

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Please, submit letters to the editor, articles, reviews, etc... via E-Mail to:

> Compuserve...... 70007,4454 GEnie..... ST.REPORT Delphi..... RMARIANO BIX..... RMARIANO NEST..... 90:19/350.0 FIDONET..... 112/35 FNET..... NODE 350

### > A "Ouotable Ouote"â ¢ ===========

"We think that we have a very clear marketing direction. We are trying to sell personal computers to people at the best possible price. Of course, we consider back-up and service by our dealers, and we want to develop a good dealer network. We do plan to sell customers like Circuit City [god willing]. We have no plans at present to sell at K-Mart. The TT030 will definitely be sold through qualified dealers who can explain advanced computer use. I cannot make any projections on new product from a hardware point of view, but we are definitely working on new, portable machines. If I announce one now, and don't deliver on time, you'll kill me in ST-Report."

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WHAT'S NEW IN THE ATARI FORUMS (March 1)

#### CONFERENCE TRANSCRIPT

The transcript from the February 21st conference with Sam Tramiel is available in last weeks issue of ST REPORT. Download STR708.ARC from LIBRARY 1 of the Atari Arts Forum (GO ATARIARTS) in case you missed it.

#### NEW IN ATARI VENDORS FORUM

Please see HOT30.TXT in LIBRARY 16 of the Atari Vendors Forum (GO ATARI-VEN) for CodeHead Software's announcement of HotWire 3.0 -- a major upgrade to their flexible and powerful menu builder/project tracker/program launcher. A freeware utility program for converting Macpaint files to IMG raster graphics file format. Download MAC2IMG.ARC from LIBRARY 6 of the Atari Vendors Forum (GO ATARIVEN).

Example images of fractals produced by Fractal Fantasy. Download FFCOLOR-1.ARC from LIBRARY 6 of the Atari Vendors Forum (GO ATARIVEN).

Last weeks freeware upload from the generous folks at DOUBLE CLICK SOFT-WARE -- DC DIRECTORY DUMP -- available in LIBRARY 13 of the Atari Vendors Forum (GO ATARIVEN).

#### ATARI PORTFOLIO FORUM

The Atari Portfolio Forum has been named Atari's official online area for Portfolio support.

The PowerBASIC and Hyperlist beta tests continue. Thanks to the efforts of Atari Portfolio Forum members, these fine products should be ready for the public in the very near future.

Be sure to check out the great new Portfolio files available in LIBRARY 1.

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> CPU REPORTâ ¢

Issue #101

by Michael Arthur

CPU Systems Roundupâ ¢ XXXI

GRAPHICS PROCESSORS, TIGA, AND THE TI 34020 CHIP

Graphics processing has come under a lot of attention recently in the computer industry, as many graphics-intensive tasks, such as ray tracing, realistic animations used in real-time simulations, and even work in normal 3-D CAD programs, often take up a comparatively enormous amount of CPU time. However, while advances have been made, most graphics chips (such as the Amiga's Agnus and Denise chips or the ST's Blitter chip) are either custom-designed for a particular system, not powerful enough for sophisticated tasks, or not versatile enough to handle many of the operations involved in computer graphics by themselves. For example, while the blitter chip can display a circle which is generated by the GEM VDI very quickly, it cannot draw the circle itself. Texas Instruments has developed their 340x0 line of graphics processors, which claim to provide and versatility needed for fast graphics operations on workstation-class systems. Since Atari's TT030 line of microcomputers will (hopefully) be finding high-end uses, it is necessary to examine the options and needs that workstation-level computers. In understand what potential graphics processing may have, let us examine Texas Instruments' 34020 chip, which is currently a leader in the graphics coprocessor market.

The TI 34020 chip is a graphics processor. Unlike graphics coprocessors, which only handle specific commands given to it, this type of chip is a general-purpose microprocessor, which is geared towards performing graphics operations. The TI 34020 can independently access to the main CPU's DRAM and VRAM, has a local and host bus interface, and can be fully programmed like a normal processor. It is the descendant of the TI 34010, the first of TI's 340x0 line of graphics processors.

The TI 34020 is a 32-bit chip with a 512 byte instruction cache, which is capable of performing 10 million instructions per second, or from 5-10 times faster than the TI 34010. Designed to perform graphics operations,

it supports most standard graphics and text operations, as well as providing functions like area fills, Bit block moves (or BitBlit, one of the functions of the Atari ST's Blitter chip does), calculations on fields in memory, and built-in support for windowing. It supports data transfer rates of up to 20 megabytes per second, and is also capable of displaying fonts, by storing them as bit-mapped patterns. It has an array of raster operations as well. It goes far beyond the concept of an ordinary graphics coprocessor, providing many of the amenities needed in areas like multimedia and desktop publishing.

# TT Video Boards, Standardization, and the TIGA Specification

Given its capabilities, several hardware companies began making graphics cards which used the TI 34020 as a graphics chip. However, these boards were very diverse in abilities, and were all incompatible, meaning that video drivers had to be written for each of them, and that software programs had no standard with which to truly utilize the 34020's more sophisticated capabilities. In order to solve this dilemma, Texas Instruments announced TIGA, a software interface for 34010-based video displays which works independent of graphics resolution, the size of the color palette, and the amount of displayable colors available on a board.

TIGA is actually a set of functions, or primitives, which act as a programming "language" in much the same way that a program can use GEM's VDI to display graphics. TIGA is made up of three elements:

- Applications Interface, which is the actual set of commands which applications use for graphics operations. This basically provides the same function as GEM's VDI.
- Communications Driver. This is a TSR program which sends commands given by the AI to the  $340 \times 0$ -based video circuitry, and passes the results back to the computer.
- Graphics Manager. This program communicates with the CD, and acts as the board's driver software. It accepts commands given to it by the CD, processes them with the video circuitry's hardware, and outputs them back to the CD.

While the Graphics Manager makes a 34010 board TIGA-compatible, the Applications Interface is the foundation of the TIGA Standard. It consists of over 150 functions and primitives, which come in three types:

- 1) Core Primitives: These instructions, which are standard with TIGA, perform basic graphics functions, such as screen clears, cursor shape and displaying, and background/foreground colors.
- 2) Extended Primitives: These instructions (which are used only if an application needs them) provide more sophisticated commands, such as performing drawing operations. This set supports most of the 34020's capabilities, such as drawing lines or circles, array functions such as BitBlit (which is performed by the ST's Blitter Chip), displaying fonts, and CAD operations like panning and zooming into pictures.
- 3) User-extended (Custom) Primitives: Programmers can design their own TIGA primitives, in order to make the 34020 perform operations which are typical of the graphical user interface which is in use. Texas Instruments itself wrote a TIGA Device Driver for Microsoft Windows by

designing Custom primitives, so all of Windows' screen operations could be performed directly by the 34020 chip.

Since Extended and Custom Primitives are basically the same, a PC Windows application would perform just as quickly with a TIGA Device Driver for MS Windows as if it were specially designed to work with the TIGA Extended Primitives. This has great portends for operating system performance:

- CAD/rendering programs like AutoCADD or Caligari could utilize the 34020's special capabilities directly (using TIGA's standard set of Extended Primitives) for tasks like redraws and zooming to/from images. On sophisticated CAD images, these operations are usually CPU-intensive, and take up a lot of time. Using the 34020 and TIGA, these operations could be done VERY quickly, and wouldn't have to take up a fraction of the processor time that it would ordinarily take. This would result in FAR faster performance in graphics-intensive operations like solid-model object rendering.
- If a microcomputer or workstation vendor were to bundle a TI 34010 Graphics processor (which is a lot less expensive than a 34020 chip) on its motherboard (or video display card), it would only need to use one TIGA "Device Driver" to handle graphics operations on Third-party Video boards. This would mean that someone who later bought a video board with a 34020 chip wouldn't have to reinstall or reconfigure his/her operating system setup in order to fully use that video board's capabilities.
- The TI 34020 chip is downward compatible with the 34010 chip, just as future versions of the 340x0 chip will be. Therefore, TIGA is already capable of taking advantage of the increased speed/capabilities of future generations of graphics coprocessors.

Many PC Companies are already exploring options similar to those stated above. For example, one company has written a TIGA device driver for AutoCAD which allows it to use the 34010's capabilities. Not only did this result in high-resolution graphics, but using the 34010 as a display list processor made AutoCAD graphics operations occur almost instantaneously. In addition, several TIGA-based video boards for IBM clones now have device drivers for Microsoft Windows, giving owners of Windows-based systems far more options (and far less potential stress) for upgrading to high-end video displays.

However, there are several negative marks against this idea, one of which is the price of the 34020 chip. A 50 MHZ 34010 costs less than \$60, and the component cost for making a 34010 video board is considerable. This has placed Video Boards based on the TI 34010 graphics processor above the \$800 price range, with most 34020-based boards being priced at \$1500 or more. However, one of the true constants of the computer industry has been how quickly high-end hardware becomes affordable.

One of the favorite uses for computers are their graphics. With the 68030 TT both powerful and versatile enough to provide workstation-class capabilities, all of the available options for utilizing that power must be examined. This essay on TIGA and the TI 34010/34020 line of graphics coprocessors is meant to be a "first step" in evaluating these options, and exploring the possibilities which microcomputers make so eminently tantalizing.

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> STR Portfolio News & Informationâ ¢

Keeping up to date...

THE ATARI PORTFOLIO FORUM

On CompuServe

#11

by Walter Daniel 75066,164

BJ Gleason uploaded a new version of PBASIC this week. Version 4.1 (PBUP41.ZIP) mostly fixes bugs, but a couple of new statements were added. He also uploaded a program that will "squeeze" PBASIC files (SPB.EXE) by removing unneeded line numbers, REM statements, and spaces.

Some new BASIC programs were uploaded as well. BJ converted a Model 100 program to create QCHESS.BAS, a slow (about 7 minutes per move) Chess program. If you're interested in Chess for the Portfolio, download BJ's PCHESS.EXE. PCHESS is a compiled version of QCHESS and runs much faster. PCHESS displays the board using text, so I'd suggest that you get a small travel Chess set with magnetic pieces and refer to the Portfolio screen to enter moves. BJ also uploaded VADER.BAS, a Space Invaders-type program for PBASIC 4.1. Hugh Campbell uploaded his Conversion Calculator (CC.BAS) that comes with 30 English-metric factors already in the program.

The on-again, off-again saga of WordPerfect for the Portfolio seems to be on again. A WordPerfect person posted a message with the news that the WordPerfect folks have a programmer officially working with the Portfolio developers kit on this project. The tentative goal is for a Portfolio version of WordPerfect Executive that will list for \$149. There is still some negotiation to be done with the marketing department before the product is finalized and approved, but there are at least three Portfolio owners employed by WordPerfect Corp. For the full text, see message #9537.

John Feagans (75300,703) seems to have released his driver for the Tandy PDD-2 portable floppy drive as a commercial product. The PDD-2 connects to the Portfolio serial interface as an RS-232 device and can store about 200k on a 3.5 inch floppy disk. I have no other information, so send queries to John in the forum.

As I've reported in the past, there are other parallel port floppy drives that could conceivably be connected to a Portfolio. Sysgen has such a portable drive (the "Portable EasyFloppy", 3.5" and 5.25" versions, list price of \$395) and is considering developing a software driver for the Portfolio to use their product. If you are interested, send a message to 76424,3123 or call Robyn Dudly at 800-821-2151.

David Stewart has been working with Turbo Pascal and reports that versions before 5.5 might run on the Portfolio. If you use LZEXE to compress the TPC.EXE file, then copy TPC.EXE plus SYSTEM.TPU and DOS.TPU to a 128k, you might be able to compile Turbo Pascal programs on your Portfolio. Brett Glass reports that Turbo Pascal 3.01A, the generic MS-DOS version, works as is on the Portfolio.

It's editorial time! OK, I admit it. I'm an engineer. What does this have to do with the Portfolio? Simple--I think that Atari and software developers are missing a potentially huge market by not positioning the Portfolio to get a piece of the programmable calculator pie. I bought my Portfolio hoping that some type of mathematics package would become available, but none has to date. Fortunately, BJ Gleason created PBASIC, so I have created some numerical analysis programs on my own. Still, the Portfolio could do much more if the right software was available.

While some of the high-end Hewlett-Packard and Texas Instruments calculators have lots of good stuff, they don't have QWERTY keyboards and 40 by 8 character displays (240 by 64 pixels in graphics mode). The Portfolio screen would make dealing with matrices easier and the Portfolio keyboard would make formula entry more direct than for calculators. There's also no need to restrict a Portfolio program to simply emulating programmable calculators. Earlier versions of some excellent mathematics programs such as MATLAB or MathCAD might be small enough to fit on a 512k ROM card or even a 128k ROM card. The fully-featured Macintosh version of MATLAB is less than 300k! I think that with a little source code massaging, some existing programs could be running on the Portfolio soon.

Please remember that my editorial rantings represent my opinions only, not those of STReport, Atari, The MathWorks, MathCAD, or the Franklin Mint. If you've got any ideas about Portfolio products, send me a message in the forum.

> CPU STATUS REPORTÂ ¢

LATE BREAKING INDUSTRY-WIDE NEWS

Issue #10

Compiled by: Lloyd E. Pulley, Sr.

- Redmond, Washington

COUNTERFEITERS NABBED BY MICROSOFT

Microsoft was awarded a summary judgement against J&S International, JIP Design, Joe Fok, Susan Chan and Norman Chan, five sources of at least 25,000 counterfeit copies of MS-DOS which had an end-user value of \$1.8

million. A hearing to determine damages and other issues will be held in May.

- Cambridge, Massachusetts LET YOUR COMPUTER DO THE WALKING!

The first CD-ROM to contain the business telephone numbers from every U.S. Yellow Pages telephone books was recently released by Dataware. The CD-ROM Yellow Pages contains nearly 10 million business telephone numbers, comes with software that allows it to be operated in a memory-resident mode, is compatible with MS-DOS systems and will be priced at \$399.

- Washington, D.C. PIRACY SETTLEMENT WON BY SPA

Davy McKee Corp., a construction engineering firm, agreed to settle with The Software Publishers Association (SPA) for \$300,000 in a software copyright infringement suit. The suit, which had been filed on November 16, 1990, alleged that Davy McKee routinely copied software copyrighted by Lotus, Software Publishing and WordPerfect, in violation of the Copyright Act.

Along with the \$300,000 settlement, Davy McKee agreed to a consent decree prohibiting illegal use of the plaintiff's software, to destroy all unauthorized copies of software manufactured by all SPA members and to institute formal internal copy control procedures at all of its offices. In addition, the SPA will be allowed to perform annual software audits at Davy McKee over the next two years.

- Waltham, Massachusetts LOW COST MAC LASER PRINTER FROM GCC

GCC Technologies has introduced the first under \$1,000 Macintosh laser printer. The \$999 Personal LaserPrinter II will work with all Mac models, including the new Classic and LC. GCC feels the PLP II "will bring superior laser printer laser printed output to customers who were previously limited to inkjet solutions." Apple and Hewlett-Packard are also expected to introduce an under \$1,000 Mac laser printer sometime this year.

- Novato, California WORDSTAR ENTERS MACINTOSH MARKET

WordStar, who last year shipped a quarter of a million word processors in the MS-DOS market, entered into an agreement to acquire Lifetree Software, the developer of Correct Grammar, a grammar checker for MS-DOS and Macintosh computers.

Lifetree, which was founded in 1981 by Camilo Wilson, had sales revenues of \$4 million in 1990. Lifetree will become a division of WordStar and will give WordStar an immediate market share into the Macintosh

marketplace.

- Fort Worth, Texas

NEW LOW-END PC FROM RADIO SHACK

Radio Shack has announced its new Tandy 1000 TL/3, a 10 mhz 286-based PC for the home-office market.

As part of the selling price of \$1,099.95, the TL/3 will come with MS-DOS 3.3, Radio Shack's DeskMate integrated software package included. It will also include, 640k of RAM, a 3.5" floppy drive, 4 XT expansion slogs, keyboard, a PS/2-style mouse, a 3.5-inch diskette drive, a serial port, a parallel port, two joystick ports, a microphone jack, a headphone jack with volume control, an internal speaker and a real-time clock. The TL/3 can store and play back speech and sound.

The unit supports monochrome alphanumeric, Hercules monochrome, and CGA and Tandy Enhanced CGA displays, and an optional VGA is available.

- Fremont, California -----

SYQUEST MOVES

SyQuest Technology Inc. has moved to a new location at 47041 Bayside Parkway in Fremont, California from its former Warm Springs Road address. The new 87,500 square foot facility includes 8,000 square feet of clean room space for the production of removable disk cartridges. SyQuest disk drives are manufactured in Singapore.

- White Plains, New York \_\_\_\_\_\_

PS/2 PRICE REDUCTIONS BY 5-20%

IBM has announced 5 TO 20 percent price reductions on several models of its Personal System/2 (PS/2) family of computers.

- Tokyo, Japan JAPANESE MINISTRY AGAINST WAR SIMULATION SOFTWARE

The Japanese Ministry of International Trade and Industry (MITI) has reportedly told Japanese software makers and personal computer game magazines, they should not promote war images. MITI said that many software makers are promoting war-related games and it might encourage war.

- Monterey, California \_\_\_\_\_

NEW MULTIUSER DOS FROM DRI

DR Multiuser DOS is the most recent multiuser operating system to be released by Digital Research, the company that created CP/M, GEM and the MS-DOS compatible DR DOS operating system.

DR Multiuser DOS, a replacement for the company's Concurrent DOS 386, runs on 80386 and 80486-based computers, and can support up to 64 users. The new operating system, which will be available in March, has a retail price of \$695 and is positioning itself as a low-cost alternative to Unix which allows users to retain their DOS applications.

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#### :HOW TO GET YOUR OWN GENIE ACCOUNT:

To sign up for GEnie service: Call: (with modem) 800-638-8369.

Upon connection type HHH (RETURN after that). Wait for the U#= prompt.

Type: XTX99587,CPUREPT then, hit RETURN.

\*\*\*\* SIGN UP FEE WAIVED \*\*\*\*

The system will now prompt you for your information.

-> NOW! GENIE STAR SERVICE IS IN EFFECT!! <-

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> STR Portfolio News & Informationâ ¢

Keeping up to date...

THE ATARI PORTFOLIO FORUM

On CompuServe

#12

by Walter Daniel 75066,164

David Barker posted a fascinating message about the "Fn" (Function) key. He noticed that the Fn key works as a "sticky" key, i.e., you do NOT have to hold the Fn key down while pressing another key. The Portfolio manual clearly states that the Fn key must be held down, but my experiments show otherwise! The sticky-key technique works with those keys marked with blue letters: 1 through 10 for F1 through F10; the cursor keys for Home, Pg Up, Pg Dn, and End; and O for Off. Actually, you have to press the Fn key again to get the Portfolio to switch off. You must

hold down the Fn key when pressing the Ins/Del key to change Insert/Overstrike modes.

See message #9578 for word about Portfolio products that DIP is offering in the United Kingdom. Word is that Atari will mail the second version of the APB (Accessories and Peripherals Bulletin) to all Portfolio owners in the near future.

I mentioned the possibility that certain versions of Turbo Pascal might run on the Portfolio last week. A message in the forum pointed out that version 4 requires 256k of memory, so a Portfolio cannot run it. Keep in mind that version 3 will run, though.

BJ Gleason uploaded his PBASIC editor for PCs this week (PBE13.ZIP). This PC-only program provides a PBASIC development and file transfer environment for desktops. Some PBASIC programs were uploaded as well. Hugh Campbell posted a second version of his Conversion Calculator (CC-2.BAS) as well as a data entry program (DB1.BAS) that will create tab-delimited files suitable for reading by database programs running on desktop machines. Another PBASIC game, Blockbuster (BLKBST.BAS) is now available.

Do you keep sensitive information in your Portfolio? Do you want to keep such information safe from prying eyes? Then download DES10.ARC, a Portfolio data encryption program. This program uses the Data Encryption Standard that was developed by the U.S. government for data security.

### Editor Note:

You aren't seeing things, there are two Portfolio news articles in this week's issue, #11 was omitted last week. Mea Culpa.

> THE FLIP SIDE STR Featureâ ¢

"A different viewpoint"

A LITTLE OF THIS, A LITTLE OF THAT

by Michael Lee

If you're a games player, you should love this weeks issue as there has been lot of discussion on the major networks recently concerning some new games coming out for the ST.

You'll probably notice that I'm trying out a new format again this week.

I just haven't found one yet that I've been pleased with. Let me know if you like it or don't like it.

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Question from Robert Floyd from the Softlogik RT on Genie...

Does SoftLogik plan to support the DeskJet 500 in a more complete way
i.e., support for the built-in fonts and font cartridges?

Answer from Nevin Shalit (SoftLogik RT sysop) on Genie...

I am 99.9999% certain that there will not be support for fonts in the various font cartridges. This just isn't the way PageStream works.

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Background information (compiled from several posts) about DPaint ST, from Electronic Arts (EA), and the company that developed it, ArtisTech Development, from Anthony Pabon (ArtisTech's on-line representative) on CIS....

ArtisTech Development is a company out of Sacramento, CA. and we wrote DPaint ST. When we were first designing it, we had no idea that it would be published by EA (or called "Deluxe Paint"). One of our goals for DPaint was to create an awesome paint/animation program that would have all features available to 512K users.

We went through the England office of EA because it has a MUCH better base and understanding of the ST computer. It is a strange arrangement, as EA in the US has to import DPaint, even though we are 100 miles from their US office. I am not on-line as an official representative of EA, but I thought I'd donate any info that might be useful to others.

It is Electronic Arts' product as far as customer support and service are concerned. They get paid for that sort of thing. You call them about updates etc.

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From Wayne Watson on Genie...

I just purchased the ST4096C board for a Simm memory upgrade...After receiving it, I read over the docs and tore apart the ST and started modifying it.

After about an hour of desoldering the resistors and rewiring things, I was ready to put the boards in place. This required removing the shifter chip (it was socketed) and placing the 1st board on top of the socket. Everything seemed to fit perfectly so I powered up. I immediately got a high pitch noise from the power supply and the little surface mount chip on the board started smoking. I turned off the computer and called up John Russell. He told me what seemed to be wrong and I went about trying to fix it. Anyway, to make a long story short, I had placed the shifter board upside down. After looking over the docs, I noticed in the bottom righthand corner of one of the doc sheets, was a little diagram. After carefully looking over it, I noticed that the board was upside down. Anyway, I reinstalled it and said a little prayer and everything went fine. I finished touching things up and put it all back together. I ran the memory test program and all went well. The surface mount chip must be a tough little

thing because it has been performing flawlessly for the past week.

The board that holds the Simms fits right under the keyboard. I still have room to add other things later on if I need to. The Simms are now as cheap as the Dram chips and they are a lot easier to deal with. You just place the Simm in the socket, push it back until it snaps in place. That is all there is to it. No legs to bend or anything. The Simms also sit at about a 30 degree angle so you do not need much clearance.

Anyone who is thinking of upgrading their memory, I strongly recommend the ST4096C board. It is a very nice design. You do need some soldering skills or have someone who does install it. Make sure you install the shifter board correctly. It will save you a headache. I got lucky (someone up there is watching over me) but you may not. Also, the board comes with everything you need to install it. It even includes the solder (but not the soldering iron).

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Comments from Lee (Lexicor Software) on CIS about problems running some games on the new STe's and TOS 1.6x...

...You should know by now that it is quite customary for game writers to break official programming guide lines. I am surprised that so many games do run.

You will see that the authors of the most popular games will begin to port their work over to the new Atari machines as they become more numerous (sic).

Just think how exciting it will be when you can play your games in 256 colors with stereo sound and save your best games to video tape!!!

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From Lauren (WordFlair) on Genie...

User updates are shipping. We held them up for a last minute bug and because we were hoping to get all the FSM GDOS changes made to avoid sending an update disk. However, as Atari still has not released final pricing or shipping dates, we have gone ahead and shipped to users...if you don't get your update in the next week (week of 02-28-91), give us a call at 415/461-4552 and we'll check your order again.

The WF II swaps will not ship till the end of the month. We are still getting orders from Canada postmarked the 15th and want to consolidate the orders to our duplicator. So we'll send the order off to the duplicator next Monday so look for your swaps in the next couple of weeks.

Please bear with us during this order consolidation time. We do this to minimize cost and administrative handling in order to give to be able to offer our users very good pricing. Thank you all for your patience.

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HERO! I've been waiting for this for while...I had left the author, Dan Winslow, a message a few months ago, asking if Hero II would someday support modem/MIDI connections, for simultaneously 2 player play, when they can be in different rooms, or whatever. He told me about his new program, HERO!, which will be commercially available soon, and is much improved! Although there is no MIDI ability...there is a modem option so you don't have to wait on your teammate.

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From Cliff Allen on Genie...

B.R.A.C.E. (Blue Ridge Atari Computer Enthusiasts) in Asheville N.C. is Proud to announce the 2nd ANNUAL COMPUTER FEST.

Come one, come all to the Land Of the Sky and meet the Biggest little Atari users group in western North Carolina.

Date: 20 July 1991 Place: Westgate Shopping Mall (Junction of I-240 & I-26) Asheville, N.C. Time: Noon to 6pm

Stay tuned for further updates.

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General information from Spectrum HoloByte about some of their products from CIS...

...the Atari ST version of Flight of the Intruder is coming along very nicely. We hope to finish the program in a month or two.

...We're just finishing up VETTE! for the Macintosh this week, but it still doesn't look good for either an Atari ST or Amiga version. Not enough interest in the product overseas to make it profitable.

Question from Greg Zepka from CIS....

Are there any plans to make a WW1 fighter combat game for the ST?

Answer from Spectrum HoloByte on CIS...

...sorry but we don't have any plans right now to do a WWI fighter combat game. I guess the most recent ones have been Blue Max by 360, Knights of the Sky by MicroProse and Red Baron by Dynamix. Not sure which ones will be converted to the Atari ST, though.

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Compiled from several posts by Pattie and Bill Rayl (AIM Magazine) on Genie...

We'd like to announce the addition of Matt Ratcliff (Mat\*Rat) to the

pages of Atari Interface magazine. Matt is well known for his articles on the Atari 8bit line of computers, and has many articles to his credit.

Matt joins fellow author Dave Plotkin, who has been contributing a monthly column to AIM for about half a year now. These two make a fine combination, and should have lots of good stuff for our readers.

....Atari Interface magazine has jumped in circulation from 4,500 to over 6,000 with the addition of overseas distribution. We're going to hold our ad rates to their current level, so advertising in AIM becomes an even better bargain...if you'd like to find out about our rates, please call me at (313) 973-8825.

Atari Interface offers FREE full page ads for user group sponsored AtariFests. Up to 3 months worth of advertising is offered free of charged, based on availability of ad space.

Although we've been offering this service since we began publishing, it hasn't been publicized much and only a few clubs have even used the service. Now that AIM is sold in bookstores across the US and Canada, as well as distributed overseas, placing an ad in AIM for your club's show could prove very profitable.

If you're planning to put on a show, contact us at (313) 973-8825 to discuss advertising.

About Populous 2 from Jim Ratkos on Genie...

Populous 2 should be out sometime late summer or early fall. There is a small write up in the March issue of ST Format. It goes something like this:

"Bullfrog, the programming team behind Populous, are currently working on the follow-up, ST FORMAT can exclusively reveal. Populous was the biggest selling game of 1989 and one of the top five 16-bit titles ever, selling 46,000 copies on the ST, so news of a follow-up is bound to create considerable interest."

"Populous 2 will feature completely new code and is expected sometime in September. Peter Molyneux, the head programmer at Bullfrog, said, "It's still very early in development, but I can't wait to play it. We're using our cleverest routines yet, but we're concentrating on gameplay - honing it into the ultimate game." He added that the displays are now working four times more quickly than those in the original but with ten times the depth."

"A brand new divine being has been introduced into the gameplay, namely - and we've been trying to work this one out - an atheist. The three deities in Populous 2 will have 30 divine effects to choose from:"

"Swamps Volcanoes with fiery boulders and lava streams Earthquakes where the land cracks open and people and houses fall in Tornadoes Tidal Waves Lightning Bolts Plagues Pestilence A religious kamikaze maniac Armageddon Druid Priests Paladins Parting Seas Fireballs."

"Populous 2 is actually being developed on an ST, and the Bullfrogs

have chosen to use a completely new display routine in the program, along with some ideas they picked up while creating the acclaimed PowerMonger. The game will include over 200 different animations, compared to Populous' 20. The landscape will also be fully animated with terrain-sensitive land blocks. What's more, buildings and cities will literally grow, rather than just transform as they did in the original Populous."

About the original Populous - from J.ROY18 on Genie...

...EA said they have a newer version of the STe compatible Populous coming in from the UK within 2 weeks, which will correct the locking-up problem some STe users, like myself, have. They suggest sending the disk back with a letter saying you are waiting for the new STe version coming in from the UK.

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From Gordon Moore (author of Super Boot) on Genie..

It's been a while since I've released a new version of Super Boot, but a new version of Super Boot will be out in about 1 - 2 weeks. New features include:

- Digitized Sound -- you can load a single sound, a random sound, or you can link sound files to pictures
- You can now change and save function keys within SUPERBT.PRG
- You can change the Startgem program within SUPERBT.PRG
- Optional attention bell
- You can link date/time setting to function keys, so that you only set the date/time for programs that really need it
- Plus several bug fixes

The digitized sound is really something else! I'll leave another message in this topic when I upload the final version (Version 7.0).

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From Jim Burton of ANTIC on Genie...

Unfortunately, because of the recent move to a bi-monthly format, and the need to change the Feb issue to reflect that (new cover, new editorial, etc.) The Feb/March issue is going to be late. The earliest it will be mailed will be in mid-March. However, issues following that are already planned out, and are practically finished, so they will be out on schedule.

\_\_\_\_\_

Until next week.....

ctsy; Fido

# NEWS FROM AUSTRALIA

by Gary Spiteri

Atari Australia are suffering from a very similar condition to that of Atari America. Simply put, there is just not enough advertising (in fact there's been none in a good while). There has \_never\_ been one Mega ST or STE advert on nation TV. In 1990 they was one set of adverts - and that was the Teenage Mutant Ninja Turtles cartoon movie being sponsored by the Lynx and 7800 game systems. Of course the Amiga is advertised and has a strong marketing base...

The result is Australia is \_very\_ Amiga-ised. I had read somewhere that per head of population (only 16 million people down here), Australia has the greatest Amiga concentration in the world.

But the ST users are tough people! Those who own Atari's are very faithful and its a real shame that Atari Oz doesn't treat us better. Each of the States of Oz has a Atari User Group, which are strong although not huge. I am proud to be a committee member of the Atari Computer Enthusiasts (New South Wales) - ACE (NSW) for short. We have around 350 ST members and although small, we have close ties with Tony Barker (programmer of SOUNDOFF, FANTASIA etc., STE demo's) and Stephan Adam, another great programmer (you should see his ST\_EYES - a conversion of Mac EYEBALLS). I believe that between Swavek Jabrzemski (President of ACE) and myself, we are possibly the most vocal Australians.

We seem to suffer from a severe case of isolation, and I suppose this explains our heavy use of this Echo. This echo has introduced Australia to KAOS, NVDI and OVERSCAN - powerful items of great interest that no-one knew about. We also keep informed through "ST Informer", "Current Notes", "ST Applications" (from the UK based ST Club), "STart", "ST World", "ST Format", "ST Report" and "Znet" online magazines. Early 1990 saw the first Australian ST specific magazine "Your ST" published - it never went past the pilot issue. Because of these we know a fair bit about what's going on... including the Mega STE.

Most of the serious software we buy is either from importers (and there are not too many of them) or direct from the company. Swavek even goes as far as telephoning many of the overseas companies and the news that he is calling from Australia usually results in a cheaper price! He was the \_first\_ nonGerman user of OverScan! (Swavek, I know we'll be reading this, I hope you don't mind me rattling off like this!)

Prices of items vary, though generally they are somewhat expensive because we don't have the market to support profits through cheaper prices. Its less expensive to buy direct with overseas money orders - America being the best value. Games are the most popular software around and locally cost AUS\$70 each. 1040 STE's cost AUS\$995 and 520STE AUS\$795. Buy them through Atari's distributor and for a extra AUS\$100, one gets a 2

year extended warranty (Ideal when getting my DMA chip changed to the one that doesn't corrupt Hard Drives). Mono monitors (SM124) cost AUS\$400 (!) and the new 14" colour monitor cost AUS\$495 while the older SC1224 used to cost AUS\$595.

Although Atari was quiet through the Christmas sales season, it appears that Atari has just started a new campaign... We'll wait and see.

I suppose because of our "isolation" I turn to you European guys to help out by keeping us informed. Again I plea to you guys tell me what STE specific stuff is out there - you're seen my message that includes a list of what ACE (NSW) has - what else is there? Oh well, I'm sorry to paint such a picture but I hope you appreciate the way we feel when we Australians look at the healthy European market, and the bad feeling we experience when we look at our own. We can but hope though, that 1991 will be better.

Tony Barker - the programmer behind SOUNDOFF, FANTASIA etc has just completed two new programs - and they're \_brilliant\_!

MYMONO.PRG is Tony's long awaited STE only MONO Emulator. It uses various STE hardware including the blitter and hardware scrolling, making this the \_fastest, most feature laden MONO emulator ever to appear\_!

It even includes a special "Amiga like" interlace mode to create the best 640\*400 emulation on the colour monitor (there's a little flicker, and there are \_two\_ other emulation modes). I've run Calamus on a TV and it looked, and ran at a usable speed.

Tony's latest STE demo - MVNGPXLS.PRG is in his own words "My most technically advanced demo yet!". The sample is \_brilliant\_ and the 3D scrolling Star Field is like \_nothing\_ you're very seen before. Its \_brilliant\_!

> STACY POWER STR InfoFileâ ¢

Atari Stacy Battery products...

# MULTIBYTE INCORPORATED PRESS RELEASE

Multibyte Inc, manufacturer of the Atari Stacy Battery products and cases, is ALIVE and doing WELL. The products we are currently manufacturing are:

CASEY Plus - semi rigid powered case for the Atari Stacy computer.

Allows for the use of the Stacy and cartridges devices while in the case. Comes with 4.5 hour battery, case and

battery charging adaptor. MSRP \$368.00

CASEY - semi rigid powered case for the Atari Stacy computer only. Comes with 4.5 hour battery, case, and battery charging adaptor. MSRP \$348.00

CASEY Jr. - soft carry case (unpowered) for the Atari Stacy MSRP \$135.00

CASEY Jr. Internal Battery - 2.8 hour internal battery pack that fits inside battery compartment the Stacy computer. Comes with battery pack and charging adaptor. Does not require modification of computer. MSRP \$198.00

Our Casey line of products DO NOT void Atari Corporation's Stacy warranty.

NOTE: all time tests have been made on a Atari Stacy 4 using floppy access, hard drive tests, memory tests running consecutively with out a screen saver. Times will vary on different computer models.

This product line has been under development since December of 1989. This project has had a number of setbacks due to the complexity of the engineering for the battery packs, the charging adaptors, and custom building the cases. Due to vendor supply problems, we have been unable to meet our production needs until now.

In the past our suppliers have proven to be unreliable and unable to meet our demands until recently (anger has it's uses). Fortunately these little (lengthy) and (extremely) costly delays are over as of February 5, 1991. Our shipments are due to come in on a regular schedule.

We received our first production shipment of batteries and chargers January 31, 1991. These products will be shipping to our customers starting February 1, 1991. If you have paid for and not received your product by February 10th, 1991 PLEASE call us immediately so that we may correct our error. If you have product on backorder and have not received it by March 1,1991 let us know! Right now things are extremely hectic and we now have over 150 backorders to process please hang in there. We are shipping product as fast as it is assembled.

I would like to take a moment to thank each and every customer for their patience, trust, comments, suggestions, complaints, and perseverance. I would also like to apologize to our loyal and frustrated customers from the depth of our hearts for the frustration and gray hair we have caused. Please accept this apology for the delay in processing your orders. After 6 months of waiting, false hopes, and broken delivery dates we are starting to get things rolling properly. Forgive us our transgressions.

Thank you for your patronage and if you have any questions, suggestions, comments, or complaints please call (703) 406-9139 anytime between 9:00am and 9:00 pm EST Monday through Friday.

# CUSTOMER SUPPORT AT ITS BEST!

by Steve Barnes

Living in Canada has its advantages, namely, we get first crack at much of the new Atari hardware and provide shelter to some of the best developers in the world. We also have a devalued dollar and something called 'free trade'. (HA! What a joke.)

In May of 1990 I decided I would purchase a processor accelerator from Fast Technology, I decided to purchase it from the U.S. as it was significantly cheaper then purchasing one in Canada.

My T16 arrived within 2 weeks and was shipped via Airmail. Reading over the installation instructions I determined that it was a piece of cake to install. I broke out the soldering iron and set to installing the board. Well, its not as easy as it looks! If you buy yourself any kind of upgrade that requires more than a little bit of soldering, PAY SOMEBODY TO DO IT!

Anyway, the difference was phenomenal. I loved it. But after about 2 days, I noticed some very weird things happening. I checked the board out and I could make the system crash at the same spot repeatedly. I called Jim Allen (owner of Fast Technologies) and explained my predicament. No problem says Jim, send me the board and I'll fix it up pronto for you.

The board was sent back to Jim via registered mail in September (note, this is out of warranty by this time.). I've since learned that if any electrical equipment is going to fail, it is most likely to happen in the first few hours of operation - this is known as the 'burn-in period' claimed by manufacturers. If it doesn't fail in the first few hours of operation it will most likely run without problems for years.

I gave Jim a call a few weeks later to verify that he had received the package. He had, and informed me that the board was in fact defective and would be replaced at no charge to me. Fantastic. But, there was a problem, he was temporarily out of stock on replacements for about 4 to 6 weeks. Well, I appreciated him telling me the truth rather than be told that the replacement was on its way.

November; I called Jim to check the status of my new T16. The boards just came in and yours will be shipped immediately. I don't mind telling you that once you have a little bit of speed, its painful to go back to8mHz!

December; Where the heck is my T16! "You mean you don't have it yet?". Nope. "Oh oh, let me check on it." Turns out my replacement got lost in the shuffle (literally!). No problem, Jim has always told me the truth. I've done similar things myself. I was told the board would be

sent to me Federal Express first thing in the morning.

Two weeks later, Jim, where the heck is my T16? "YOU DON'T HAVE IT YET!", nope. Jim gave me the waybill number for Federal Express (FE). I called FE in Toronto to trace the package.

Yes, we have your package but there is a problem. It says its value is \$1.00 and that it contains some type of computer hardware. "This doesn't seem correct to us. So we're holding it here until we receive a copy of the invoice from FastTech. We'll call the supplier and get him to FAX us a copy."

January: I called FE again and asked, where is my package? "We're waiting for a copy of the invoice". I then call Jim at FastTech. FE hasn't contacted him. I explain what's happening. He now immediately sends FE a FAX of the invoice.

A week later. I called FE again. "Yessir, we received a copy of the invoice, and its been processed and held at our depot until we receive duty, federal sales tax, G.S.T, brokerage and holding fees". FE said.

I simultaneously blew a gasket and gave myself a serious case of vapor lock. The FE trace agent explained to me that the invoice (from FastTech) says the board is replacement and is thus, treated as a new purchase (I have a copy of the way-bill, its says clearly the board is a repaired unit). Meaning I must, once again, pay duty etc., on the board. I then called Customs and Excise Canada to find out exactly what was going on. It's true. Unless I am able to prove that I did, in fact, export the board to FastTech for repair, I would be obliged to pay the duties twice.

No problem, I have my receipt when I sent the package back to FastTech registered mail. Not good enough. We need the export form you filled out at the post office. ???. Seems one of our revered postal employees was supposed to have me fill out an export form. Well, you know the post office.

I called FE once again. The trace agent handling my problem package is sick, dead, not in, out to lunch, washing the cat, etc. Fine, I'd like to speak to the manager. Now, I must tell the story yet again. Why should FE care HOW the package was labeled if it labeled properly to start with? SLAM. I get hung up on. I call back an hour later. SLAM.

A terrible way to do business if you ask me. I called FastTech, they agreed to have it returned to them. Fastech would resend the package Air Mail and marked as a "gift" (This is a common method for those of us living in Canada to get around paying the excessive duty and taxes).

In the meantime, I receive notification from FE stating that if the package is not picked up in 14 days, it will be sold or destroyed. I find this to be utterly amazing, as to date, I've have NEVER received any type of invoice or bill stating that I owe FE any money whatsoever. Also included in the letter was a photo-copy of the way-bill. It seems that Jim Allen did declare the board as a repair (There is a huge difference in the eyes of customs between a replacement and a repair). Which means that FE, in their "infinite wisdom", decided to interpret the package in there own way.

Jim Allen then agreed to send me cost free replacement (these things aren't cheap folks!)

To date, I've spent in excess of \$30 in long distance calls to FE and to FastTech, I've been hung up on, lied to and have never received any form of an invoice from Federal Express. To top it all off, earlier today, I finally received an invoice from Federal Express stating I owe them \$38.00! Shipping fees for a package they were \_supposed\_ to send back to FastTech more than a month ago (he still hasn't received the original back yet).

Throughout this entire ordeal, Jim Allen has been sympathetic, understanding and has extended every possible courtesy to me, absolutely above and beyond what most people would be grateful to receive. Please, if I could, in anyway, persuade any of you to purchase an accelerator board, by all means, don't think twice about purchasing a board from Fast Technology. The product is a quality piece of work, it performs better than advertised, and the company stands behind it far and above the norm.

As for Federal Express, a letter has been sent to the Better Business Bureau with documentation and I implore you to do business with just about ANY other courier on the continent. Dissatisfied is a gross understatement. How they got to be as large as they are is far beyond me.

Thanks for your time, and I hope my experiences dealing with FE, FastTech and customs will provide some degree of enlightenment.

> UPS & CANADA! STR FOCUSâ ¢

"the taxmen & UPS "cometh and bungleth"

A HORROR STORY AT THE BORDER

by Michael Lee

Two compiled posts from Nathan (ISD) from Genie...

Allow me to take this opportunity to relate some facts that are starting to cause me real aggravation, not to mention money. This is in regards to UPS, United Parcel Service. I will share the facts of two bills with you and I ask you all to bear this in mind whenever you choose to use this service when sending us anything from the USA to Canada.

Story #1: A customer sent back 2 disks for updating. He already owned 1.09N but had somehow inadvertently trashed his disks. So he sent them back to us so we could redo his originals. By sending them back to us, he saved a charge of \$2.00 he would have incurred if we had just sent him back two new disks as this is a registered owner of the product. Of course he probably paid more than that to UPS for shipping but that is another story. His disks arrived, we replaced them and sent them back,

no charge. And then yesterday, I got in the UPS bill for his shipment, not for shipping charges, but for everything else imaginable. Those costs to me are as follows: For whatever reason the disks had been valued at \$65.00? So, based on \$65.00, rather than \$2.00 which is really all the disks are worth, I paid 8% GST (A new Canadian Tax) = \$5.26. I paid a UPS broker fee of \$11.75, a disbursement fee (whatever that is) of \$1.75 and a Brokers GST tax of .82 cents for a total UPS charge to process the 2 disks, of \$19.58. None of these charges relate to shipping. Now I could challenge this price based on the fact that the \$65.00 premise was wrong to begin with, but to be honest, its not worth the aggravation of doing.

Story #2. This customer outdid himself. He sent back 3 DynaCADD disks for updating, a free update. He valued them at US \$1,300.00, again, I have no idea where this price came from as the full suggested retail price is US \$995.00. But I now paid GST based on that amount = \$105.26. I paid a broker fee of \$29.50, a disbursement fee of \$7.00 and a Broker GST of \$2.07 for a total of \$144.13. All this because the DynaCADD enduser sent us back his 3 disks for a free update. Obviously, I'll fight this one with UPS.

Even if you correctly value the disks at \$2.00, UPS will still charge me a minimum Broker Fee and disbursement fee for more than the \$2.00 value.

There is a moral to this story. I want to stay in business. I keep charging nothing to upgrade disks that cost me \$20.00 or \$144.13 to receive, I'm not going to be here very long. I don't think that would make very many people happy, not even our competition. So, when sending disks in for an update or an upgrade from the USA, either do not use UPS or be prepared to pay the costs of doing so. I assure you that a few dollars spent in the post office for a special delivery or whatever, will get your disks here about as fast.

....Any disks that are mailed back to us, arrive without a hitch. This is the easiest way to send them. If time is a factor, then use a courier service of some kind, BUT, value the disks at \$2.00. It is an accurate statement. As I mentioned earlier, as long as you are registered, you cannot lose out because we will replace a lost or missing disk. Be sure that when mailing anything to us, that you check with your local post office for the correct postage. They do charge a few cents more to mail to Canada than they do internally within the USA. And finally, perhaps the best way to upgrade, pay us \$2.00 for new disks when upgrading, along with the upgrade fee.

Thanks for listening.

# PHASE-CHANGE VS DYE POLYMER AN ERASABLE DECISION

by Mike Stepansky

There are some facts I wanted to tell you about the latest optical storage technology, which was not mentioned in the recent STReport issue 7.07. This paper will to help you to understand more about the latest erasable optical system which incorporate one of the several technologies: magneto-optical, phase-change and dye-polymer. Each technology is unique and has its own strengths and weaknesses. A new solution for the WORM disk will be discussed at the end.

MAGNETO-OPTICAL (MO): Most of the explanation on the technical nature of MO is pretty straightforward in STReport 7.07. The key advantage of MO media is its relative longevity. Maxwell, Sony, Phillips DuPont Co. and others have demonstrated that their magneto-optical media can perform more than 7 million write-erase cycles without losing its functionality. Most manufacturers of MO media claim a data life of approximately 10 years. information on MO media, however, requires three passes of the one to erase, a second to write new information onto the laser: disk and a third to verify the new data. The time required to complete these steps is one of MO's greatest disadvantages. Sectors must be erased before they can be rewritten. In addition, unlike magnetic storage and other optical alternatives, optical drives cannot write data a bit at a time. Instead, an entire track must be completely erased and then rewritten.

PHASE-CHANGE: In the advanced phase-change approach to rewritable optical media, laser light converts spots on a thin film from a duller, photo-sensitive, amorphous material into a highly reflective crystalline state. The laser beam reads the reflection from the crystalline surface as positive or negative and translates the information into data. To erase data, another, more powerful beam reverses the process, changing the spot back to an amorphous form. Phase-change technology has an advantage over MO technology in that phase-change systems have direct OVERWRITE capabilities (eliminating the third pass in MO technology). Phase-change systems also have the ability to write data a bit at Both of these factors produce higher-performance characteristics for the phase-change approach, so far.

The read-write head assemblies in phase-change systems are also less complicated than their MO counterparts, since they don't rely on a magnetic coil to change the characteristics of the disk. Studies have shown that it is possible to write and erase data recorded on phase-change media at least 500,000 times. This means that the user could execute a read/erase cycle once a minute for nearly five years and still be able to store and retrieve data. However, sophisticated detector circuits in the drive will reallocate questionable sectors long before any problems with erase cycles are encountered.

DYE POLYMER: Dye Polymer technology is another approach being examined by firms. It uses organic dyes to create a thin coating on the media, usually bluish-clear in color. The laser

beam causes small bubbles on the surface of the disk which scatter light and reduce the area's reflectivity. To erase data, the beam reduces the bubbles (as oppose to "burn" the pits in WORM technology). It is known as "expansion vs shrinkage" phenomenon due to Curie Effect. While no manufacturers are shipping dyepolymer systems yet, some industry experts feel that if the approach can be made commercially feasible, the media may be very cost-effective. However, in addition to stability problems, researchers are still attempting to get more than 200,000 read/write cycles from the media.

SOLUTION FOR WORM DISK: Remember, not all optical disks are The design of the media and materials used in created equal. manufacturing, even the manufacturing process itself, differs drastically from one manufacturer to another. These differences can be a help or a hinderance to your total optical storage. majority of commercially available write-once media (WORM) is made using metals such as tellurium, antimony, selenium or bismuth. write to the media, according to WORM technology, a laser heats microscopic pits on the disk. The heating causes changes to occur in the media's metallic layer - thus forming permanent bubbles or pits, like CD-ROM disk. These formations change the localized surface reflectivity and represent the information being stored. The data is then read by a lower power laser.

The problem with these metal-coated disks is that the metals that are used can corrode when use over time, which limits the life expectancy of the media. In addition, since standard manufacturing processes may require multiple layers of the metal, the chances of defects occurring increase with each layer that is added to the disk's surface.

Fortunately, Plasmon Data Systems has devised a bubble-forming media that solves many of the problems associated with other metal-coated disks. By using platinum, instead of tellurium or other metals, Plasmon media provides outstanding corrosion resistance, stability and strength. And Plasmon's patented manufacturing process requires only a SINGLE layer of platinum, which increases the quality of the media. Plasmon engineers have further improved the longevity and performance of their disks by learning and borrowing from nature: moth's eye.

MOTH-EYE TECHNOLOGY: Plasmon's research and engineering group has perfected a unique, patented "moth eye" construction is modeled after the corneal surface of the eye of the night moth. "This structure suppresses reflections out of the eye and enhances light absorption, which improves the moth's sight," explained one Plasmon engineer. An extreme fine, corrugated pattern is stamped on the entire surface of the disk. This pattern is very light absorbent, so little light is reflected back to the light source. When the write laser creates a bubble on the disk's surface, the corrugated surface reforms and the reflective bubbles can later be read as a bit of data.

For the past nine years, Plasmon engineers have concentrated on refining and perfecting the manufacturing techniques for their media. Innovations such as moth-eye technology and single platinum layering make Plasmon write-once media the best you can buy. Plasmon provides a LIFETIME warranty against defective workmanship and materials.

LIFESPAN: Plasmon is only major manufacturer of write-once media that guarantees the data integrity of their media for 50 years - for archival purposes - in platinum. Tellurium, antimony and other metals limit the life expectancy of media between 5 to 10 years. Although dye polymer disks contain no metals, they also have a limited lifetime of approximately 10 years.

NOTES: Plasmon's write-once optical disk can store 940 MB of data, higher than the usual CD-ROM storage space. Also, you might be able to insert your own published write-once disk into a CD-ROM drive for data retrieval or for massive software handling! More than that, you can even SELL your own published WORM disk because they would follow the same format, assuming you follow the copyrighted laws. Also, if you wish, you can buy Pinnacle Micro's latest 3.5" erasable optical disk that can store 128 MB of data (call 1-800-553-7070 for pricing). Finally, why not use an optical disk drive on TT? <grin> It should be able to hold enormous amount of data for audio/graphics/videos/text to be used in a serious multimedia presentation.

When choosing an erasable drive, either in a standalone or a multifunction configuration, it's important to consider the features of the erasable technology being employed. The type of system chosen can make a difference in the overall performance, dependability, cost and ultimately, in the satisfaction that it provides.

> RADICAL TYPE STR InfoFileâ ¢

THE DTP Magazine!

# RADICAL TYPE THE MAGAZINE FOR ATARI AND AMIGA PUBLISHING

by Mike Loader

Radical Type is pleased to announce that it now covers all desktop publishers for the Atari and Amiga, including PageStream, Calamus, Professional Page and Saxon Publisher. Radical Type also covers all Atari and Amiga graphic applications, such as TouchUp, Deluxe Paint, Outline Art, MVG, Professional Draw and ProVector. Whether you use a desktop publisher for printing personal letters or for laying out full color advertisements, Radical Type has something for you.

Each bimonthly issue of Radical Type is filled with tutorials, reviews and news. Tutorials show how to achieve different text effects, how to improve your page layout and how to effectively combine text and graphics

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"ATARI NEWS & EVENTS FIRST!"

- Andover, MA

FASTECH - TURBO 20 SIZZLE!

Jim Allen of Fast Technology has announced a number of fine new products destined to breathe "dazzle and sizzle" into the STe line of computers. The Turbo 20 adapter for the 1040 STe will have an onboard clock and the ability to take the 1040 STe ram to 14mb! he said. Also, for the Stacy, a special treat for STACY owners, the adapter for the Turbo 20 will have two ROM sockets (Cartridge Oriented). The Mega STe has its own adapter for the Turbo 20 and it will allow the Mega STe to zip right up to 10mb of RAM. He said. When asked about the '030' and its future, he said when the time comes, (RSN), the performance curves are far in excess of all expectations. Guess we'll have to wait and see. Turbo 20 are also downwardly compatible as a direct replacement of the current Turbo 16 better known as T-16.

- Erie, PA

AMIGA OWNERS BEWARE!

It appears that a certain, recently announced, RAM upgrade is not what it is cracked up to be. In fact, the components used in the picture advertisement have been recognized as those custom components used in a totally different marketplace on a totally unrelated product. This information comes from the manufacturer of the original device as they recognized their goodies being represented as a "ram upgrade" that's about the size of the 68000. Caveat Emptor!

- Boca Raton, FL

ATARI FORUMS HAVE MIDI EXPERT & SYSOP!

Ron Luks, head sysop of the CIS Atari fora, has confirmed the fact that John Davis, Midi Guru for ST Informer Magazine has been brought on board and will serve as sysop and Midi expert for Atarians. The Atari fora, accessed by users worldwide, have gained a great asset. Good luck and congratulations to you John!

A reliable source has stated that the new MSTE TOS ROMS will function properly in a 1040STE. Therefore, once Atari makes them available as a separate item, you will be able to upgrade the 1040STe's OS as well as its RAM.

- Lynwood, WA

TCB TRACKER ARRIVES!!

Get ready to rock! The hottest music program to hit Europe is now available. PDC is the exclusive North American distributor and supporter of TCB Tracker. In fact, TCB Tracker is so hot that it was officially named the best music program of 1990 in Europe.

What is TCB Tracker? It's a four track music record and playback system that includes a drum machine, sequencer, and synthesizer all built in. In essence, it's a complete mixing studio. The notes played are all digitized sound, so the end results are crystal clear. It allows you to create real digital songs, mix existing songs, or use samples for your own programs -- all in digital sound quality.

Demos (both graphics and sound) are the hottest thing in Europe. The premiere demo maker, "AN Cool" Nilsson, a Swedish 18 year old created TCB Tracker to facilitate his demo creations (see ST Format article enclosed for full story on Nilsson). For example, the Samantha Fox demo is an example of AN Cool's fine craftsmanship. The digitized sound sample was easily created with TCB Tracker. In fact, doing so was the most basic of processes. Much more complex sounds are possible, such as the Dragnet theme song.

TCB Tracker will appeal to a wide audience, from the music-novice to advanced programmers. For the MIDI musician it has full MIDI compatibility. Included for the programmer is assembly and GFA BASIC source code to play songs/sounds in their own programs (for both the ST and STe). In fact, every major European software house is now using TCB Tracker to create music in their programs. STe users will enjoy full Stereo support, as well as Bass and Treble controls. For the novice a tutorial is included in the manual, a help function is offered, and technical support is available; using it is a breeze.

TCB Tracker is quick and simple and it uses only about 29% of the computer's processing time. Amiga digitized sounds are compatible. TCB Tracker is fully mouse and icon controlled with keyboard shortcuts for more advanced users. It works on all ST computers from the 520 STFM to the Mega 4 STe (a color monitor is required). No additional equipment is needed -- it sounds great through the monitor speaker and it pumps with additional speakers hooked up.

PDC has slashed the retail price of TCB Tracker from the projected price of \$99.95 to \$69.95. Additional song disks are available in a 10 disk set for \$39.95. We will be fully supporting users by offering technical support, newsletters, additional sample/module disks, and much more.

Available from:

Public Domain Corp. (PDC) 4320 - 196th SW Suite B-140 Lynnwood, WA 98036-6721

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> GramSlam! STR Reviewâ ¢

WRITE IT RIGHT, RIGHT?, RIGHT!

by Bill Pike (PAC)

When I began writing reviews I was just having fun passing on what I learned both the good and bad points of programs and systems. I consistently used a spelling checker and I thought if all the spelling was correct I couldn't be far wrong. As I continued, I had more than a few critical comments about my murdering the "King's English" (sometimes by slow torture) by my friends and others, I found the need, read that necessity, of improving my grammar. If I was using a Itty Bitty Machine (IBM for the uninitiated) several programs would be available to check grammar, at a cost of from \$75 to \$250, however, not using a IBM emulator, the option was not open to me.

To make a long story shorter. About a year-and-a-half ago I found a demo version of a program called GramSlam. I tried the program and it was just what I needed, and the cost was right. Needless to say I ordered the full working version within a few days. Version 1.0 was awkward to work with but it did the job. The program is now at version 3.0 and works very well indeed. GramSlam checks for 1,200 abuses of the English language. I am now using it consistently for all my writing. Yes, I really purchased a program before I wrote the review. There is a demo version of GramSlam version 3.0 on Compuspend for those who wish to look before buying. I have nothing but praise for the companies providing this option of try before you buy instead of sticking you with a program which doesn't do what you wanted.

Enough of the background! The cost of the program is \$34.95 plus \$3.00 shipping from Phil Comeau Software, 43 Rueter Street, Nepean, Ontario, Canada K2J3Z9.

GramSlam is a Grammar and Style Checker. This program compares words and phrases in a document with a listing of possible errors. The listing has been compiled by Phil Comeau from nine, college level and beyond, books of grammar and style. The program will also check for variations between American and English language spellings. Yes, you can add your

own pet phrases to the program if you wish.

Some of the features are: It works on any Atari 16 bit compatible computer, medium and hi resolution are supported, it can be run as a accessory or from the desktop, multi-levels of checking from Brooklyn to formal London are supported, the program works with any text editor/word processor which can output a ASCII file, GramSlam can also run as a application, a readability index (FOG index, years of schooling needed to understand the document) is shown after the check is complete along with the statistics about the document. Yes, It does check for double words Cliff.

GramSlam can output to the screen, a printer, and/or a disk file all at the same time. You are shown the problem it has found, the context surrounding the problem, and a suggested correction. The program is a bit dumb, it just looks for words and phrases so some suggestions should be taken with a grain of salt. I suggest saving the file to disk along with the screen display. This allows you to open a second window in your word processor/text editor containing the file of problems next to the original document.

The manual for the program is well written, and covers just about everything you could wish. However it doesn't cover how to install the program on a Hard-Disk. Opps, Oh, Well we can't be perfect. Just copy all the files to a folder anywhere on the disk, how about in the folder with your word processor? There is a discussion of how GramSlam works and its limitations. A section showing examples of errors along with the level assigned to each type of error, to give you a idea of just what the program is reporting. The reporting environment is discussed and examples are given. You are shown how to edit (add) your own pet errors for the program to find. There is also a discussion of how to interpret the information the Document Statistics Section, shown at the completion of the check, shows.

There is only one bad point I can find with the program, it only works well with ASCII files. Non-ASCII .DOC files can be checked but the program does get confused. Why it is suggested to install the program as a Accessory I don't know, why is it necessary to install it as a Application (do you wish to check every file with a particular extension)?. Just run GramSlam as a program. I suggest saving your document in .DOC format first (it is much easier to make corrections later) then saving the ASCII file for checking by GramSlam.

GramSlam 3.0 \$34.95 plus \$3.00 shipping Phil Comeau Software 43 Rueter Street Nepean, Ontario Canada K2J3Z9

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